2

To be pression or to be gravity

2.1) The Mach number

The prosperity of heliocentrism was ceased a by talented objection, that all dropped objects should land behind their starting positions because the turning Earth leaves them behind. Unfortunately, the objection of the talented people was refuted because of a dead law in air atmosphere – the law of inertia. It is the Galileo's law and the first law of Newton. Their common reply is that: all dropped objects have inertia, and thus, the rotating Earth will not leave them behind. The law of inertia cannot be applied in air atmosphere under any conditions. Galileo demanded that, the law of inertial is valid only in the absence of air but the Helios fellows extended the inertial law in air atmosphere. We would gratefully appreciate Galileo if his law were situated in air, since it will save our Earth from the pollutions of the fossils. Consider one of their fellows in airplane and during its motion in air atmosphere he left the airplane with a parachute. According to the inertial law; the fellow and the airplane are supposed to move side-to-side with the same speed. He must feel proud to his superpower; the airplane is consuming propellers and he is not! In reality, and in the first moment, he will realize that the airplane is ahead of him and he is left behind in air because the inertial motion is terminated by the presence of air. Argue or not, it is well-known fact since the ancient civilizations. In the presence of air atmosphere, the law of inertia does not function. If you threw an object aloft several meters, it will come back to your hand; not because of the law of inertia but because the Earth is stationary. You cannot breathe oxygen from air atmosphere and speak about the law of inertia. Dump the law of inertia in space.

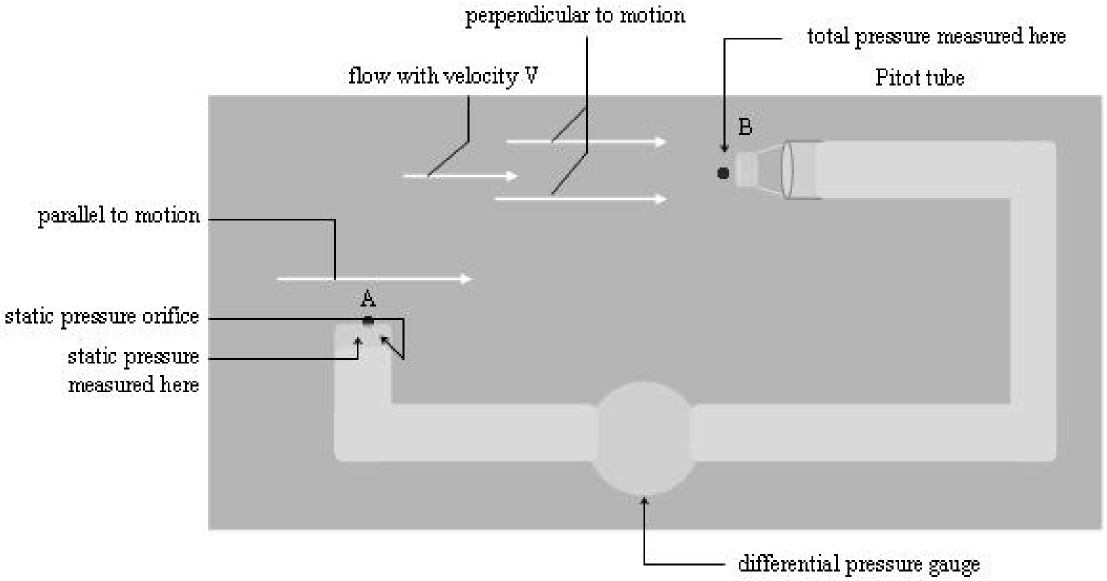

Figure 2.1 Schematic of a Pitot-static tube.

The modern folks are disturbed from the disbelief of some fellows to their theory. They are wondering why some fellows whom are belonging to the 21st century and cant not realize the rotation of the Earth with a speed of 1669.8 km/hr at the equator. To even our trouble; the modern fellows insisted that the air atmosphere is also rotating with the rigid Earth. Perhaps, they do not know that, the Earth's speed varies with Earth's latitude. Since the rigid sphere has different speeds along its latitude; hence, the air molecules must have the local speed of the rigid Earth at any given latitude. What are the airspeed and pressure pattern that would be caused by the Earth's rotation? The maximum airspeed and the maximum pressure (dynamic pressure) must be oriented at the Earth's equator in which the Earth suffers its maximum rotational speed of 1669.8 km/hr. Conversely, the minimum air speed and the minimum pressure (dynamic pressure) must be oriented at the north and south poles since the rotational speed is zero. This pressure setup is the fittest route for Hurricanes; a pressure drop between two regions (from high pressure to low pressure). No one has measured the Earth's speed even in the modern time with a developed technology. Scientists have measured the speed of microscopic constituents of the Earth, atoms and molecules, but they have failed to measure the speed of rotating Earth! The "Earth's rotation" is a technical notation refers to a fake mechanism that only found in the fairytale of heliocentrism. But, here we shall measure the Earth's speed with a well-known device – Pitot static tube. The Pitot static tube, shown in Figure 2.1, is an instrument of measuring the speed of airplane by measuring the difference between the static and the total pressure for a given location and condition. It is a tool that verifies the object is in motion, and not an illusion. It consists of a tube that has two ends in the orthogonal and parallel arrangements to the flow of motion. The portion denoted B in the diagram is facing (perpendicular) to the kinetic air, it measures the total pressure P_B. The total pressure of a flow at any given point is the pressure that would result if the flow were forced to stop isentropically (means adiabatic and reversible) to zero velocity. It is the impact pressure that results in the opposite direction of moving objects such as automobiles, airplanes, etc. The portion denoted A in the diagram is parallel to the kinetic air, it measures the static air pressure P_A. The static pressure is the pressure of air that is not subject to any stimulated conditions but it has the component of thermal motion. The Pitot tube measures the total pressure of the flow at B, and the static pressure at A for a given altitude height, from zero to aloft. If P_B equals to P_A, then the dynamic pressure is zero; therefore, the flow velocity has zero component or more precisely has its thermal velocity only. Basically, the aero-dynamical condition for non moving objects is when the static and the total pressure are equal. Otherwise, for when $P_B > P_A$, the flow has a kinetic velocity and it is an indication of moving object. The speed of air flow will be classified on the basis of the well-known number in aerodynamic – the Mach number. The Mach number is the ratio of flow speed, denoted V, to the speed of sound, denoted *a*, at the point of motion for a given temperature, that is

$$\mathrm{M} = \frac{\mathrm{V}}{a} . \tag{2.1}$$

Three different aero-dynamical regimes can be defined, these are subsonic flow for $M < 1$, sonic flow at $M = 1$, and supersonic flow for $M > 1$. The speed of sound *a* in meters per second for air at normal conditions is equal to

$$a = 20\sqrt{\mathrm{T}} . \tag{2.2}$$

The temperature of the air T is in Kelvin. So, by glance we must have three different regimes along the Earth's latitude in the north and south parts of the Earth as illustrated in Figure 2.2. The supersonic flow, $M > 1$, is compressible and shock waves will be formed ahead of Pitot tube; you can photograph it and send the image to one of the heliocentric centers to acclaim their beliefs. The speed of airflow (the adjacent layer to Earth's surface) at the equator is considered the same as the speed of the rigid Earth. It cannot be less than 1669.8 km/hr, but it is slightly greater than 1669.8 km/hr. In a rotational system, the angular velocity ($= \omega r$) is, clearly, larger for greater distance, and vice versa. Consider the mean temperature of the air at the equator to be 30°C (= 303°K), then the speed of sound is 348 m/s, and the Mach number M is equal to 1.33. Hence, the equator is the region at which $M = 1.33$, it is the latitude of a supersonic and compressible flow. Continuously, the second principal region is designated for the sonic and compressible air flow, $M = 1$. Instead of evaluating the Mach number from a given latitude, we re-flow the calculations that to find the Earth's latitude for given Mach number. It works in either direction. The spinning speed varies with the latitude of the Earth according to Equation 2.6. It is rearranged here, so to find the latitudinal degree as a function of the spinning speed of the rigid Earth, which is also the speed of the airflow. Consider the mean temperature of the air to be 20°C (= 293°K), then the speed of sound is equal to 342 m/s. Since V = a, then the spinning speed is equal to 1232 km/hr. The latitudinal degree ϕ is given by,

$$\phi = \cos^{-1}\left(\frac{T\,V_{\phi}}{2\pi\;R}\right). \tag{2.3}$$

The latitude that corresponds to the Mach number M =1 is 45° north and south. The third principal region is designated for the subsonic and incompressible flow, M = 0.3. Consider the mean temperature of the air to be 10°C (= 283°K). (The mean temperature drops from the equatorial value as you move toward north and south poles.) In this case, the speed of sound is equal to 336 m/s, since V = 0.3 *a*, hence the spinning speed is equal to 100.8 m/s (363 km/hr). The latitude that corresponds to the Mach number M = 0.3 is 77° north and south.

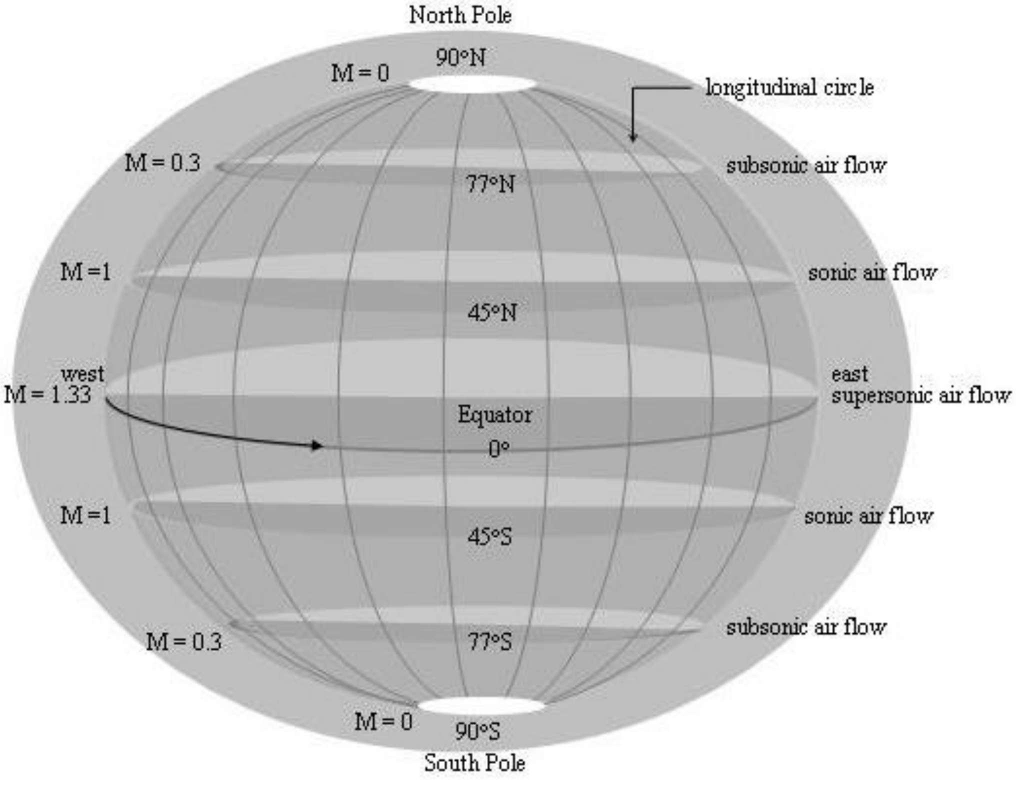

Figure 2.2 The dynamic air flow along Earth's latitude that should result from Earth's rotation. The higher is the rotation, the greater is the Mach number.

It is very obvious, that if the Earth were experiencing a daily rotation; the air flow at the surface of the Earth would have variable velocity (not the thermal), variable pressure (not the static), and variable density (not the normal). The science of aerodynamic is clear in this issue; an air flow (dynamic) should be generated from the region of M = 1.33 to the region of M = 0; from the region of high density (at the equator) to the region of low density (at the poles). Such air flow and such air pressure regimes do not exist. The localities of these regimes would terminate the life of all species on Earth. The fact that, the static sea level pressure is equal to one atmosphere (= 1013.25 mbar (millibar) = 0.101325 x 10^6 Pascal) at standard conditions concludes the absence of rotating Earth. You can confirm this fact by applying the Pitot static-tube along the Earth's latitudes. In a non windy day, the Pitot static-tube must indicate a total pressure of 1.0 atm which is equal to the static pressure; otherwise, it must be calibrated. This verifies that the speed of the air flow has no other component than the thermal static speed. If you hold the Pitot static tube so that the portion-B faces the air flow and the portion-A faces the air loft; the tube will read 1.0 atm in a standard day, in all directions. If P_B is not equal to P_A in a calibrated device, contact UN (United Nation) for immediate pressure relief. It is true and fact. The Helios fellows keep arguing that we are not feeling the Earth's rotation. It is not a matter of feeling; it is a matter of velocity and pressure. They must clarify that: if the Earth were stationary, the life and science on Earth would be different than the "reality" of rotating Earth and not using twinkling arguments that would lead to the status of stationary Earth. What causes the air molecules to experience a daily rotation? Either we assume a visible airfoil carries the air along with the Earth's rotation or to assume the outer layer of the air atmosphere is made of solid layer. Both assumptions belong to science fiction; no one accepts that the visible airfoil is unseen and the outer layer of air atmosphere is solid and not vacuum! The cause of the rotation of the air layer at sea level is without ancestor. The technique of the rotation, also, cannot be envisioned by a normal brain of human. One cannot believe a "Big Event" (not the Big Bang) – the rotation of the air layer (at the Earth's surface) – along with the rigid Earth but cannot be measured by the modern man.

2.2) Trajectory of flights

The deflection of moving objects (winds, projectiles, airplanes, etc.) to the right of motion (clockwise) in the northern hemisphere and to the left of motion (counterclockwise) in the southern hemisphere will be analyzed precisely in later series in the view of geocentric world. The phenomenon of deflection of moving objects from straight path was deduced in 1835 by Gustave Coriolis (1792-1843) and was discovered by the US Navy during the Second World

War. In heliocentric, the deflection of moving objects is caused by the Earth's rotation. In their interpretations: on a nonrotating Earth, the projectile will clearly follow a single meridian of longitude during its entire flight till reaching its target on the Equator as shown in Figure 2.3. In their interpretations: on a rotating Earth, the target on the equator moves eastward at 0.463 km/s (1669.8 km/hr) and the projectile or flight will land west of the target. Before we proceed in this topic we need to highlight one major point dealing with the deflection of moving object.

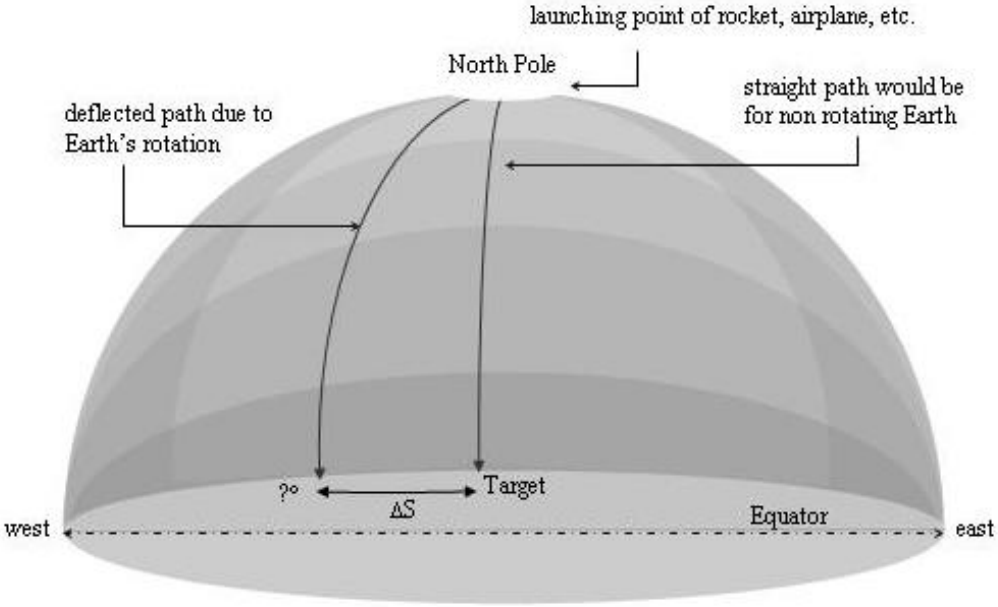
launching point of rocket, airplane, etc.
North Pole
straight path would be for non rotating Earth
deflected path due to Earth's rotation
?°
Target
ΔS
Equator
west
east

Figure 2.3 Flight deflection from the North Pole heading to target at the equator.

In reality, the strength of deflection is merely largest at the poles (north and south), and starts to slow at lower latitudes, then it becomes zero at the equator. In contrary, the fake speed of the rotating Earth is greatest at the equator (1669.8 km/hr), and it diminishes to zero at the poles. Scientifically, we should observe the opposite of the phenomenon – the deflection of moving object. That is, the magnitude or the strength of deflection is largest at the equator and zero at the poles. But, the Helios fellows are loyal to their religion, for that sake they salute the false and repel the truth. In order to legitimize the abuse of the above phenomenon by correlating it to the Earth's rotation they showed the trajectory of flights from North Pole to the equator, and not in the reverse direction. They wanted to hit two dead birds with one precious stone. They wanted to attribute the deflection of moving object to the Earth's rotation. And since, this view is causing a trouble to the law of inertia in air; they made the demonstration from the North Pole at which the Earth's rotational speed is zero. In their arrangement, they wasted their money (printed books and lectures, etc.) in order to save two dead concepts in air; these are the law of inertia and the Earth's rotation. For your knowledge, the deflection of moving objects is recognized on all Earth's latitudes with variable magnitudes (maximum at the poles!). The affiliates of US Navy were not launching their projectiles from North Pole! They were trained within the Atlantic Ocean, a good guess, but not with the white bears. Hypothetically, if the projectiles (in Atlantic Ocean) had the inertia of the rigid Earth before launching and retained the inertia during and after launching, it would hit the target precisely during the training operation, that was not the case at all. Fortunately, the US-Navy missed the right target – the law of inertial. The law of inertia, consequently, the concept of rotating Earth should be dead before the end of World War II. They cannot separate the law of inertia from the concept of rotating Earth; if one is invalid, the other is dead. If we exclude the role of the law of inertia in air (which is true); therefore the rotation of the Earth would lead to a distinct life than the normal. But because these two fake concepts are still wasting our oxygen, we shall prove to them the valueness of the air in life.

Fine, they correlated the deflection of moving objects to Earth's rotation. Launch a helicopter (chopper aircraft) from North Pole (zero rotation and zero inertia) to Paris France, refuel it in air if necessary. Once the helicopter reaches about Paris, control it at fixed aloft position for two hours without any further motion. After two hours, the Earth should make 30° of rotation beneath the helicopter. Since the helicopter started its trip with zero inertia; hence, it will not rotate with the rigid Earth, they have already admitted that pause. Will the craft be, after two hours, on top of Paris or in the middle of Atlantic Ocean according to Earth's rotation? Will the craft be, after six hours, on top of Paris or along the east cost of USA according to Earth's rotation? As far as the greenhouse is concerned, which method has zero's emission to the environment; propelling the airplanes from the fossils of the Earth or from the concept of Earth's rotation? The point is cleared in this demo and no further comments.

Let us define ΔS to be the arc shift, the arclength of deflection, at the west of the target with respect to the eastward (from west to east) rotation. The Earth (according to heliocentric) completes one full rotation (360°) in 24 hours, and each hour the Earth rotates 15° from of a full circle. The circumference (the circle) of the Earth at any given latitude is $2 \pi R_\phi$ where R_ϕ is the radius of the circle of the locative latitude, it is larger equatorward and smaller toward poles. At the equator $R_\phi = R = 6.3782 \times 10^6$ m, whereas, at the poles the circumference is just an imaginary point. The arclength of any latitudinal circle is determined from the trigonometric diagram as shown in Figure 2.4. The arc-shift ΔS at any Earth's latitude is given by Equation 2.4:

$$\Delta S = \frac{\delta^\circ}{360^\circ} \text{ x } 2 \pi R_\phi . \qquad (2.4)$$

Where δ is the rotational angle (degrees) of the rigid Earth, here δ varies from zero to 360° irregardless to the latitudinal degree. The arc-shift ΔS sites the circumference of the latitudinal circle when the rotational degree sets 360° in 24 hours. The radius R_ϕ is related to the equatorial radius R with the trigonometric relation,

$$R_\phi = R\cos\phi . \tag{2.5}$$

(We neglected the depression of the Earth's poles for simplicity; otherwise, its contribution is insignificant in the present discussion.)

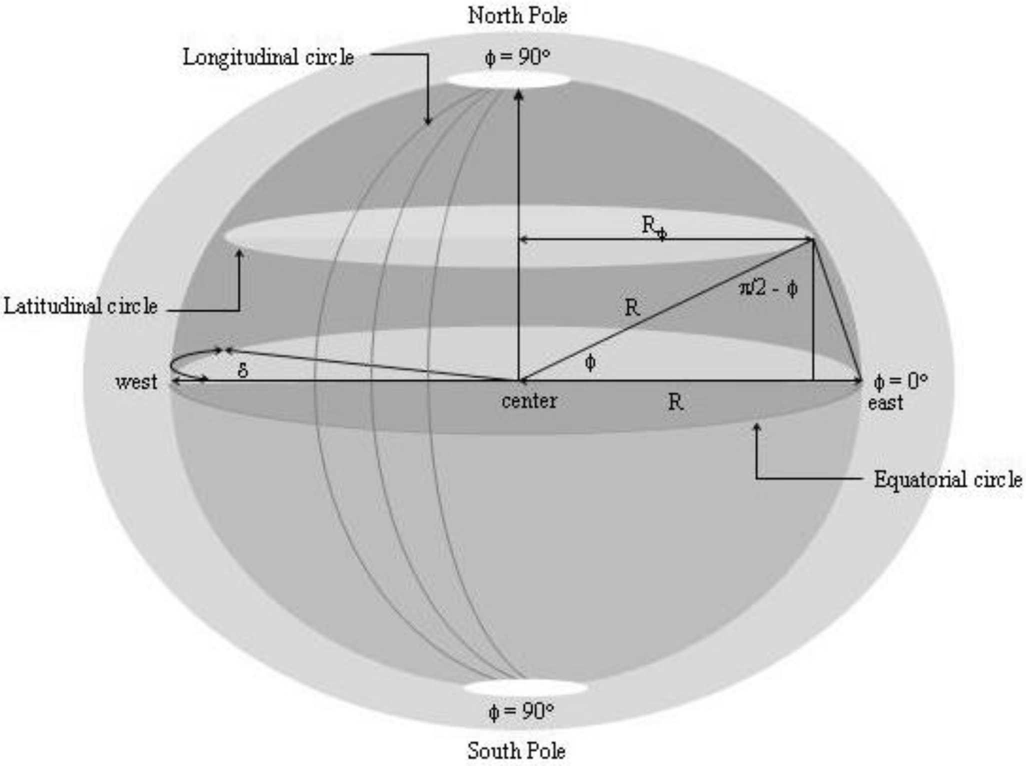

Figure 2.4 Determination of the latitudinal radii from the center of the Earth.

The latitudinal degree ϕ varies from 0° (at the equator) to 90° at the North and South Poles. The rotational speed of the rigid Earth at any given latitude, hence, is given by 2.6:

$$V_\phi = \frac{2\pi R\cos\phi}{T} . \tag{2.6}$$

The rotational speeds of the rigid Earth of some selected cities are listed in Table 1. From Equations 2.4 and 2.5, the arc-shift ΔS at any given latitude is equal to

$$\Delta S = \frac{\delta^\circ}{360^\circ} \text{ x } 2\,\pi\,R\cos\phi\,. \qquad (2.7)$$

At the equator $\phi = 0$, for one hour of Earth's rotation; $\delta = 15°$, hence the arc shift is equal to 1669.8 km. At the same latitude, for two hours of Earth's rotation; $\delta = 30°$, hence the arc the shift is equal to 3339.6 km, and so no. At any other latitude, say, at $\phi = 30°$, for one hour of Earth's rotation; $\delta = 15°$, hence the arc shift is equal to 1446 km.

Table 1 Speed of Earth's rotation at selected latitudes.

Latitude, North or South	Speed. km/hr	Cities at approximate latitude North-South
90°	0	North Pole-South Pole
60°	834.9	Oslo Norway
50°	1073.32	Kiev Ukraine
40°	1279.14	Columbus Ohio, Valdivia Chile
30°	1446.08	New Orleans, Porto Alegre (Brazil)
0°	1669.8	Quito Ecuador

At the same latitude, for two hours of Earth's rotation; $\delta = 30°$, hence the arc shift is equal to 2892 km, and so on. The degree of rotation δ is constant, but the latitudinal degree ϕ is variable. The shift is always to the west point for a given target with respect to the eastward Earth's rotation.

Can we remove the air atmosphere so that the inertia of moving objects is restored during the flight time? The presence of air atmosphere aborts the inertia that is stored by any moving object due to any method of propulsion. Hypothetically, if the Earth were experience a rotation then any object leaves the surface of the rigid Earth will be, definitely, unable to restore the inertia. It is the property of air and cannot be argued by a false concept. Hint: we cannot recall the motion of the air-layer with the rigid Earth because the flying objects are situated at high altitudes, above the sea level, above the adjacent layer to the Earth's surface. In addition, the pressure drops from 1 atm at the surface to very low values at higher altitudes; such pattern prevents the synchronized motion of all layers with the rigid Earth. However, we shall consider two cases: a case when the air atmosphere terminates the inertia and the case when this fact is eliminated.

2.3) Exclusion of inertia

For an airplane to fly along with the direction of Earth's rotation from west to east, it has to have a velocity greater than the velocity of the Earth's rotation at any given latitude. Otherwise, it will not reach to its destination because in that case, the Earth is rotating beneath the airplane faster than the velocity of the airplane. Conversely, for an airplane to fly from east to west in the opposite direction of the Earth's rotation, it has to maintain a minimum velocity at any given latitude. Otherwise, the plane is wasting the precious fuel.

Consider two cities in USA, the first is situated at the east coast (Atlantic Ocean) and the second is situated at the west coast (Pacific Ocean), both cities occupy the same the latitudinal degree, 40°. Approximately the east coast city lies at the longitude 75° and the west coast city lies at the longitude 125°. The rotational speed of rigid Earth at the latitude $\phi = 40°$ is 1279 km/hr. The rotational degree δ is the difference between the longitudinal degrees of both cities; hence δ is equal to 50°. The longitudes of the Earth are divided 180°-east and 180°-west, but, the maximum value of δ retains the full circle 360°. The circumference of the Earth at the latitude $\phi = 40$ degrees is equal to $2 \pi R \cos \phi = 30699.54$ km, and the arc distance ΔS between both cities is (50°/360°) of the circumference; hence, ΔS is equal to 4263.825 km. The true arclength is determined at the height of the airplanes, in this case, we replace R by a new variable (R+ h), in all above equations. Therefore, the true arclength at 10 km altitude height is equal to 4270.5 km.

Consider the speed of the airplane, at 10 km altitude height, is equal to 1279 km/hr, it is measured by the Pitot static tube. It is the speed of the airplane due to the fuel burn up. Its value by a chance is equal to the speed of the rigid Earth. (Remember, the arrival time for the eastward and the westward flights in a stationary Earth is simply equal to 3.3389 hours (velocity x distance.))

In the present example, we have two flights are moving with the same speed, at the same height, but in the opposite direction. Both are moving along the latitude 40° at the speed of 1279 km/hr above the sea level. Do not worry; both planes will not come to each side on a rotating Earth. The eastward flight that is moving along the direction of the Earth's rotation will never reach to its final destination since its speed is 1279 km/hr which is equal to the speed of the rotating rigid Earth, beneath, 1279 km/hr. On the other hand, the westward flight will reach the west coast city after 1.669 hours; the Earth's speed is aiding the airplane. Here, we added the velocity of the rigid Earth to the velocity of the air plane in order to find the net arrival time. In reality, both airplanes should arrive at the same time! But on a rotating Earth, the eastward flight is missing from the radar.

2.4) Inclusion of inertia

Contrarily, we assume that, the inertia of any moving object is restored in air atmosphere. In the present case, any flying object restores (maintains) the inertia that was given to it by the Earth's rotation after leaving its surface, according to the latitudinal degree. Recall both flights from the previous section. Both airplanes should restore the velocity of Earth's rotation after take off in the *eastward* direction, the direction of Earth's rotation. It is the catch of the trouble. It is the eastward velocity (magnitude + direction). Both airplanes were launched with their own velocities plus the ground eastward velocity 1279 km/hr at the latitude 40°. It is the simplest arithmetic. The eastward flight (from west to east) maintains its own velocity 1279 km/hr plus the eastward ground velocity (from the inertia of Earth's rotation) 1279 km/hr; it yields to 2558 km/hr. Since the Earth is rotating, beneath, with a velocity of 1279 km/r in the same direction of the flight, hence; the net velocity of the flight is equal to 1279 km/hr. The eastward flight encounters no trouble to reach to the final destination, normally. Hence, the eastward flight will reach to its final destination after 3.3389 hours (similar to stationary Earth).

On the other direction, all troubles will be ahead for the westward flight (from east to west). The westward flight is missing from the radar. It is moving in the opposite direction of rotating Earth. It is the re-pay of the low of inertia. They wanted to keep the inertial law in air atmosphere, but it will not keep them in air. The westward flight was launched with its own westward velocity (from the engine), and stored the eastward ground velocity (from the rigid Earth). In air or any medium; two opposite velocities are subtracted. You don't need a supercomputer to evaluate it. Both velocities are equal in magnitude (1279 km/hr) and in the opposite direction; it yields to zero. Here, we don't care that the Earth is rotating, beneath, with velocity of 1279 km/hr, but we should care about the breathers in the airplane. The airplane lost its thrust to continue flying in air. It has zero velocity. The role of the Pitot static tube then comes to solve the trouble. If the Pitot static tube reads zero for the westward flight, hereby, I apologize to all of you. But, if it reads 1279 km/hr, in a calibrated state, for this flight; therefore; …, it is up to you.

Have you ever seen flying birds? Can you tell at which direction the bird struggles during flight? It must be the westward direction according to the law of inertia. In reality, the birds are capable of flight in any direction with the same strength at the same altitude height. Even the birds realize a non-rotating Earth.

2.5) The hard choice

The idea of Earth's rotation was not being accepted by most thinkers (in all times) because of one logical reason; objects on a rotating Earth should be repelled off the surface. Unconsciously, the Newtonian fellows sacrificed their precious gravity in order to enforce the idea of Earth's rotation: objects on a rotating Earth are subject to gravity which holds them down. They had believed that the sacrifice is a matter of 0.35% of the total gravity. That is, the gravitational constant looses as maximum as 0.35% at the Equator where the rigid Earth experiences the highest rotational speed (1670 km/hr). And at the poles, the gravitational constant retains its maximum value where the rotational speed is zero. In their sacrifice, the difference between the maximum gravitational constant g_0 and the altered gravitational constant g due to Earth's rotation, g_0 - g is given by:

$$g_0 - g = \omega^2 R = \left(\frac{2\pi}{T}\right)^2 R . \qquad (2.8)$$

Here, R is the radius of the latitudinal circle which varies from the maximal value at the equator 6378 km to zero at the poles, and T is the period of rotation equals to 24 hours. At the Equator, g_0 - g is equal to 0.034 m/s^2. The maximum loss of the gravitational constant is 0.35 % (0.034/9.8), at the equator. We shall not recall the objection of the good fellows, because we have a modern one. That is, objects on a rotating Earth should not fly off. Here is the precious sacrifice: if the Earth were experiencing a rotation, then the concept of gravity is useless to hold objects down. The greatest task of holding objects down on a rotating Earth (rigid and air) would become for the real-change of air pressure in the atmosphere. The gravity would become a redundant force and should leave the Earth. The Newtonian fellows accept that, the air atmosphere undergoes a rotation with the rigid Earth. Otherwise, if the Earth rotates without the air atmosphere, it will leave the air behind; it will generate a huge dynamic pressure. The rotational velocity of the air atmosphere, V, is given by:

$$V = \frac{2\pi r}{T} . \qquad (2.9)$$

Where r is equal to R + h, R is the radius of the rigid Earth, h is the altitude height (from the surface) and T is equal to 24 hours. In any rotational system, the larger is the radius r, the greater is the angular velocity V, the greater is the angular momentum (m V r), and the greater is the moment of inertia (m r^2), where m is the mass. In a gaseous rotation-system, the build up pressure at the wall is much greater than the pressure at any point toward the center during operation. The gas pressure restores the state of equality once the machine is switched off. The principal of gaseous rotation-system is the basic idea of manufacturing the vacuum pumps used in research and industries. No one has made a rotational machine operated in the reverse of its principal, that is; the build up pressure at the center is higher than that at the wall. For simple reason, the rotational kinetic energy of gas molecules is much higher at the farthest point than any point toward the center. Perhaps you heard about the technical device, gas centrifuge, for uranium enrichment. The principal of gas centrifuge (repulsive force; directed away from the center) for isotope separation is a practical example of a rotational system. The typical device consists of a long, thin, vertical cylinder rotating in an evacuated casing about its axis with high peripheral speed (at the wall). The gas rotating inside the cylinder is subject to centrifugal acceleration which raises the pressure at the outer radius of the cylinder *millions* of times greater than at the *center*. This in turns causes the relative abundance of the heavier isotope to be appreciably greater at the outer radius than at the center. A typical peripheral speed (wall speed) in a centrifuge rotating unit is 500 m/sec (1800 km/hr), the pressure at the outside is greater than at the center by a factor of *46 million*.

Upon the above facts, we deduce the followings. For the rigid Earth to rotate about its polar axis, the whole air atmosphere should experience a rotation with constant time 24 hours (in a rotation, the angular frequency $2\pi/T$ is constant). Each atmospheric layer should have a different angular velocity; the angular velocity becomes greater at higher altitude heights. As shown in Figure 2.5, the outer layer (not the outer most) of the air atmosphere is chosen at 500 km altitude height. The rotational velocity at this height is 1800 km/hr (500 m/s), which is the same as the peripheral speed of gas centrifuge. The rotational velocity at the surface of the rigid Earth is 1670 km/hr. The outer layers of the air atmosphere, during rotation, should be pressurized than all layers toward the Earth's surface. Without going into numbers; the air pressure of the air atmosphere in that case, should increase from a minimum value at the surface of the rigid Earth to higher values as we ascend in the atmosphere. The profile of the air pressure should hold people down, without the need of any "redundant force". The gravity is hindered (unaided) to falling objects. In addition, the systemic variation of the air profile should cause the phenomenon of falling objects – air pression. Moreover, we should observe more hydrogen at the surface of the Earth than at the outer layers. The most important element in our life – oxygen – should be concentrated at the outer layers and depleted near the Earth's surface. The Newtonian and Helios fellows have no other choice than one of these; to be pression or to be gravity. The choice of Earth's rotation (the cause of pression), Figure 2.6, should repel the gravity from Earth. Consequently, the heliocentric model looses the most precious element. The choice of gravity should remove the concept of Earth's rotation from the cosmos motion, consequently; the journey of the Earth around the sun becomes useless since half of the Earth should be always in darkness and the second half should be always in lightness. What we have mentioned above are facts that should result if either case were existed. We shall compare the above cases with the facts of the real atmosphere. In a real atmosphere, the measured air-pressure at the surface of the rigid Earth is 1013.25 mbar (1 atm), at standard condition of temperature. It is the highest pressure value measured in the altitude height for standard conditions. The pressure pattern of air atmosphere reveals that, the pressure drops from 1 atm to lower values as we ascend to higher altitudes, reaching zero at the interface with space. In addition, the abundant of hydrogen is higher at the outer layer than at the surface of the Earth. Moreover, the concentration of oxygen is higher at the seal level than at the outer layers. These conclude that, the Earth had never rotated since the first day of life. Consequently, the Earth should not revolve around the sun without a rotation. In this case, the Newtonian fellows are constrained to the garden of falling apples; yet, till we see what is the matter? Up to here, the heliocentric is gone, but we have five more chapters.

In focus, living on a rotating Earth is an illusion, and the illusion cannot be real because of some fake arguments. The major points of this chapter are highlighted in the following points.

1) For one to claim a certain motion is taking place in cosmos without a cause, hence, the claim retains the state of illusion. The most important element in heliocentric model is the Earth’s rotation about its polar axis. What is the cause of Earth’s rotation? No one has attributed the cause of Earth’s rotation to any type of action or force eventhough they have attributed the cause of orbital motion (revolution) to Newton’s law of gravity.

2) The rotation of the air-layer next to the rigid Earth is without cause, and lacks a technique and tool. Perhaps, one may envision the whole rigid sphere undergoes a rotation about its polar axis. But, how one can envision the air atmosphere (the surface layer) rotates with the rigid sphere without an engineering method (e.g. air foil). In addition, what maintains the air’s rotation for tens of thousands of years (we are practical people) without stop. The rigid Earth neither playing the role of compressor nor the role of turbo pump. No one has invented a compressor or turbo pump to be operated with a mysterious energy because no one will buy either. The rotation of the background air is the greatest hoax ever invented by mankind.

3) The air pattern of the air atmosphere along the Earth’s latitudes reveals that, the air pressure is constant at standard condition along the Earth’s latitudes and it is independent of the direction. The static pressure at standard conditions (sea level and 18°C) is independent of the direction of measurements; eastward, westward, northward, southward, and aloft. If the Earth were rotating about its polar axis, therefore, the air pressure should vary with the Earth’s latitude according to the local rotational-velocity. This in turns should generate a *permanent* dynamic pressure hurricane along the Earth’s latitude from equator toward north and south.

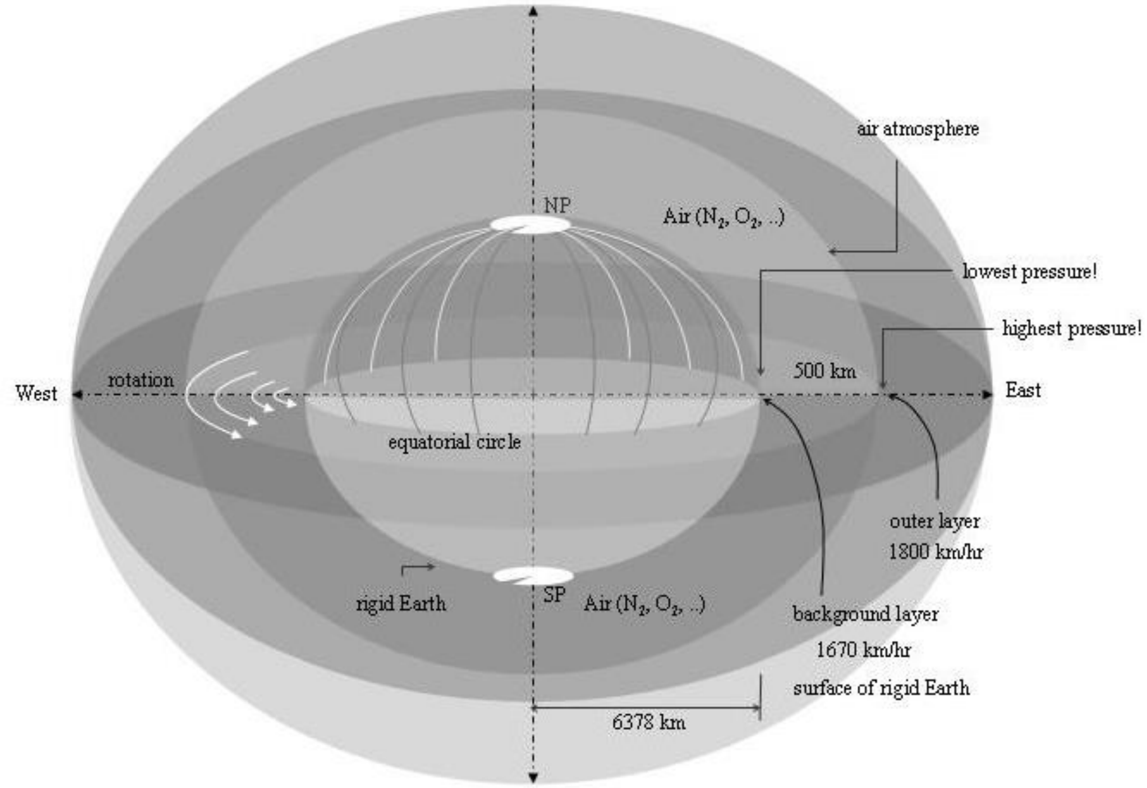

Figure 2.5 To be rotation or to be gravity. The rotation of air atmosphere should reverse the values of the altitudinal pressure.

(This is different than the dynamic air pressure that should result in the opposite direction of the Earth's rotation.) While driving you car in a highway, open the window and check the impact of the air pressure on your hand; it is the dynamic pressure. Stop your car and check the impact of the air pressure on your hand; it is the static pressure.

4) If the Earth were suffering a daily rotation it would generate an incredible deflection on all flying matters in air atmosphere.

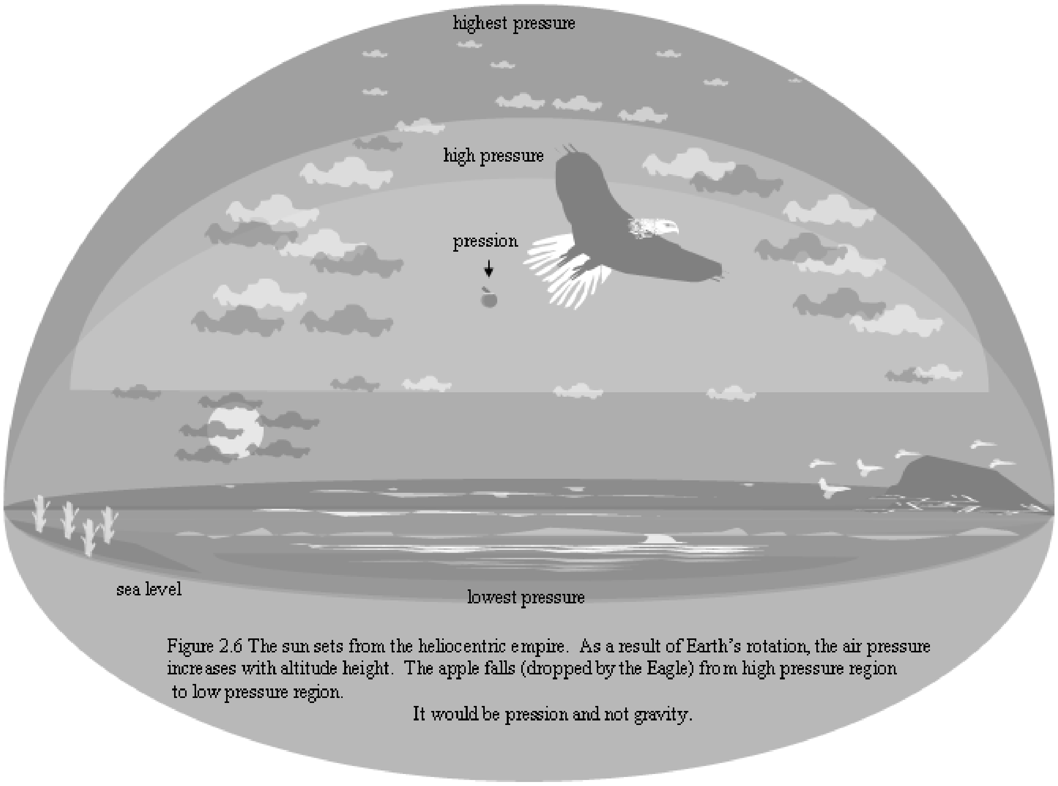

Figure 2.6 The sun sets from the heliocentric empire. As a result of Earth's rotation, the air pressure increases with altitude height. The apple falls (dropped by the Eagle) from high pressure region to low pressure region.
It would be pression and not gravity.

5) The inertial motion is terminated in air atmosphere, and thus all dropped objects should land behind their starting positions on a rotating Earth. If you do not realize this fact; then move to point 6.

6) The inertia is a vector. The inertial velocity (of the Earth's rotation) is subtracted from the initial velocity (of the engine) for all moving objects at the westward direction, and the other way round, it depends on which magnitude is higher. On a rotating Earth, the westward flights are hard to be accomplished and must lead to a distinct attitude than the eastward flights.

References

1. John D. Anderson, Jr. "Introduction to Flight, Fourth Edition, McGraw-Hill, New York, 2000.
2. Manson Benedict, Thomas Pigford, and Hans Levi "Nuclear Chemical Engineering", McGraw-Hill Inc., New York, 1981.